

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2001-035664

(43)Date of publication of application : 09.02.2001

(51)Int.Cl.

H05B 33/14

C09K 11/06

H05B 33/22

(21)Application number : 11-206147

(71)Applicant : MITSUI CHEMICALS INC

(22)Date of filing : 21.07.1999

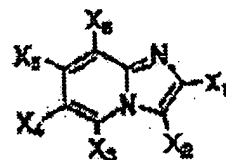
(72)Inventor : NAKATSUKA MASAKATSU
SHIMAMURA TAKEHIKO

(54) ORGANIC ELECTROLUMINESCENCE ELEMENT

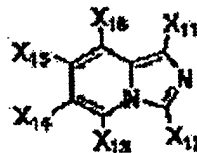
(57)Abstract:

PROBLEM TO BE SOLVED: To enhance stability, durability, and luminescent brightness by interposing at least one layer of layers containing at least one of azaindoline derivatives between a pair of electrodes.

SOLUTION: As azaindoline derivatives prepared by substituting one carbon atom in an indoline skeleton with a nitrogen atom, a compound having 1- or 2- azaindoline skeleton represented by formulas I, H are suitable. Preferably, the derivative is contained in a hole injection transport layer or a luminescent layer, and contains at least one of a luminescent organic metal complexes and triarylamine derivatives, and an electron injection transport layer may be interposed between electrodes. For example, when the hole injection transport layer is contained, at a voltage of 6.3-6.7 V, green light having an initial brightness of 450-500 Cd/m² and a half life of 500-620 hours are realized. In the formulas I and II, X1-X16 represent hydrogen, halogen, a straight chain, branched, or cyclic alkyl group or alkoxy group, a substituted or non-substituted aralkyl group, aryl group, aralkyloxy group, or aryloxy group.



I



II

LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision]

of rejection]

[Date of requesting appeal against examiner's
decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office